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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,830	01/03/2001	Henry Azima	085874-0290	1182

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FOLEY AND LARDNER  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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LE, HUYEN D

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 06/30/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/752,830

Applicant(s)

SHIMADA ET AL.

Examiner

HUYEN D. LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-24, 26-30 and 36-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-24, 26-30 and 36-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-16, 19-24, and 36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Spitz (FR 2649575).

Regarding claims 1-3, 6-10, 19, 22-24, and 38-41, Spitz teaches a loudspeaker assembly that comprises a visual display screen (3, 30), a panel form member (2, page 4, lines 14-18 and page 5, line 21) and at least one vibration exciting member (4, 4.1, 4.2, 4.3) as claimed. Spitz further teaches that the panel-form member is adapted to be resonant when excited at audio frequencies, and the vibration exciting transducer is adapted to apply bending wave energy to the panel-form member as claimed (page 3, lines 11-13, page 6, lines 13-20 and page 11, lines 5-8).

Spitz also teaches that one or more marginal portions of the member (2) are clamped or restrained as claimed (5, 31 and page 5, lines 16-20).

Regarding claim 11, Spitz teaches the vibration exciting transducer is inertial (page 10, lines 19-22).

Regarding claims 12-13 and 20, Spitz teaches an associated support or a cavity (1) as claimed.

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Regarding claims 14-16, 36 and 37, Spitz shows the resonant panel-form member (2) and the vibration exciting member as claimed (see the drawings).

Regarding claim 21, Spitz teaches the cavity that is shallow in depth as claimed (page 14, lines 1-4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4-5, 17, 26-30 and 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitz et al. (FR 2,649,575).

Regarding claim 4, Spitz does not specifically teach the material of the member (2) as claimed. However, Spitz does not restrict to any type of the transparent material for the member (2).

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Therefore, it would have been obvious to one skilled in the art to provide any plastic material for the transparent member (2) of Spitz such as polystyrene, polycarbonate, glass or a laminate of plastics and glass for providing better the rigidity to the screen.

Regarding claim 5, Spitz does not specifically teach the material of the member (2) as claimed. However, Spitz does not restrict to any transparent material for the member (2, the last three lines on page 5, and lines 11-15).

Therefore, it would have been obvious to one skilled in the art to provide any type of material for the member (2) of Spitz such as a laminate material with a plastic core and glass skins depending on the applications, and providing a better material and the rigidity to the diaphragm.

Regarding claim 17, Spitz does not specifically teach a transparent piezoelectric or electret for the vibration exciting transducer as claimed.

However, providing piezoelectric or electret type for an exciter or driver in a loudspeaker is very well-known in the art.

Therefore, it would have been obvious to one skilled in the art to provide any type for the exciter or driver for the audio transducer of Spitz, such as a piezoelectric or electret type for greater flexibility.

Regarding claims 26-30, Spitz does teach a construction of a loudspeaker or an audio transducer in television sets. Spitz does not specifically teach a user-accessible surface and means associated with the surface and responsive to user contact as claimed in claims 26-30. However, providing a user-accessible surface and the user-responsive means in the computers or television sets are known in the art.

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Therefore, it would have been obvious to one skilled in the art to provide on the television set or computer of Spitz any user-accessible surface and user-responsive means such as pads, switches, buttons, visible areas user responsive contacts, etc., for better controlling and operation the television set.

Regarding claims 42-46, Spitz does not specifically teach that the loudspeaker assembly can be applied to a telephone receiver or a portable personal computer. However, Spitz does estimate the speaker construction to be used in a communications device, a display screen module or a television set.

Therefore, it would have been obvious to one skilled in the art to provide the loudspeaker construction of Spitz to be applied to any communications device or display screen module such as a telephone receiver or a personal computer with a key pad and a lid for greater application.

### ***Response to Arguments***

5. Applicant's arguments filed 04/05/2004 have been fully considered but they are not persuasive.

Responding to arguments about the panel-form member in the Spitz, the Applicant should note that Spitz does teach the panel form member (2) which acts as a loudspeaker membrane and made of transparent material (page 4, lines 14-18 and page 5, line 21). Also the member (2) is adapted to be resonant (page 6, lines 1-6<sup>1-6</sup>), and the vibration exciting transducer is adapted to apply bending wave energy to the panel-form member to cause it resonate as claimed (page 5, lines 11-16 and page 5, lines 18-20).

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The Applicant also argued about that the drivers of Spitz are low frequency piston drivers or the teaching in Spitz is of a conventional piston driver. However, there is no disclosure in Spitz for a piston driver. Further, the low frequencies and higher frequencies can be reproduced in the Spitz system (page 6, lines 3-6).

Also, Spitz does teach the one or more marginal portions of the radiator are clamped or restrained (page 5, lines 16-20).

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (703) 305-4844. The examiner can normally be reached on 9:30AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HL  
June 25, 2004



HUYEN LE  
PRIMARY EXAMINER